

# 6JC8

## Medium-Mu Triode— Sharp-Cutoff Pentode

### 9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

#### GENERAL DATA

##### Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC) . . . . . 6.3<sup>a</sup> 6.3 ± 0.6 volts

Current . . . . . 0.450 ± 0.030 0.450<sup>b</sup> amp

Warm-up time (Average) . . . . . 11 — sec

Peak heater-cathode  
voltage:

Heater negative with  
respect to cathode . . . . . 200 max. volts

Heater positive with  
respect to cathode . . . . . 200<sup>c</sup> max. volts

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield<sup>d</sup></i>	
<b>Triode Unit:</b>			
Grid to plate . . . . .	1.3	1.2	μf
Grid to cathode and heater. . . . .	2.8	3.2	μf
Plate to cathode and heater. . . . .	0.44	0.9	μf
<b>Pentode Unit:</b>			
Grid No.1 to plate. . . . .	0.038 max.	0.018 max.	μf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater. . . . .	4.8	5.0	μf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater . . . . .	0.9	1.6	μf
Pentode grid No.1 to triode plate. . . . .	0.05 max.	0.036 max.	μf
Pentode plate to triode plate. . . . .	0.075 max.	0.012 max.	μf
Heater to cathode . . . . .	6.5	6.5 <sup>e</sup>	μf

##### Characteristics, Class A<sub>1</sub> Amplifier:

	<i>Triode Unit</i>	<i>Pentode Unit</i>		
Plate Voltage . . . . .	125	100	125	volts
Grid-No.2 Voltage . . . . .	—	70	125	volts
Grid-No.1 Voltage . . . . .	—1	0	—1	volt
Amplification Factor. . . . .	40	—	—	
Plate Resistance (Approx.). . . . .	6000	—	300000	ohms
Transconductance. . . . .	6500	5700	5500	μmhos



RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA I  
5-62

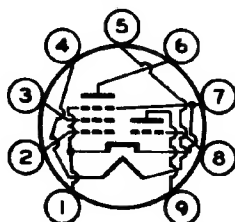
# 6JC8

	Triode Unit	Pentode Unit	
Plate Current. . . . .	12	9	ma
Grid-No.2 Current. . . . .	-	2.2	ma
Grid-No.1 Voltage (Approx.) for plate $\mu$ = 20. . . . .	-7	6.5	volts

## Mechanical:

Operating Position . . . . .	Any
Type of Cathode. . . . .	Coated Unipotential
Maximum Overall Length . . . . .	2-3/16"
Maximum Seated Length. . . . .	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	1-9/16" $\pm$ 3/32"
Diameter . . . . .	0.750" to 0.875"
Dimensional Outline. . . . .	See General Section
Bulb . . . . .	T6-1/2
Base . . . . .	Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW . . . . .	.9PA

- Pin 1 - Pentode  
Grid No.3,  
Cathode,  
Internal  
Shield
- Pin 2 - Pentode  
Grid No.1
- Pin 3 - Pentode  
Grid No.2
- Pin 4 - Heater



- Pin 5 - Heater
- Pin 6 - Pentode  
Plate
- Pin 7 - Pentode  
Grid No.3,  
Cathode,  
Internal  
Shield
- Pin 8 - Triode Grid
- Pin 9 - Triode Plate

## AMPLIFIER — Class A<sub>1</sub>

### Maximum Ratings, Design-Maximum Values:

	Triode Unit	Pentode Unit	
PLATE VOLTAGE. . . . .	275 max.	275 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE . . . . .	-	275 max.	volts
GRID-No.2 VOLTAGE. . . . .	-	See Grid-No.2 Input Rating Chart at front of Receiving Tube Section	
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Positive-bias value. . . . .	0 max.	0 max.	volts
PLATE DISSIPATION. . . . .	1.7 max.	2.3 max.	watts
GRID-No.2 INPUT:			
For grid-No.2 voltages up to 137.5 volts. . . . .	-	0.45 max.	watt
For grid-No.2 voltages between 137.5 and 275 volts. . . . .	-	See Grid-No.2 Input Rating Chart at front of Receiving Tube Section	

### Maximum Circuit Values:

	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance:			
For fixed-bias operation . . . . .	-	0.1 max.	megohm
For cathode-bias operation. . . . .	-	0.5 max.	megohm

# 6JC8

---

- <sup>a</sup> At heater amperes = 0.450.
- <sup>b</sup> At heater volts = 6.3.
- <sup>c</sup> The dc component must not exceed 100 volts.
- <sup>d</sup> With external shield JEDEC No.315 connected to pin 3 except as noted.
- <sup>e</sup> With external shield JEDEC No.315 connected to pin 6.



RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA 2  
5-62